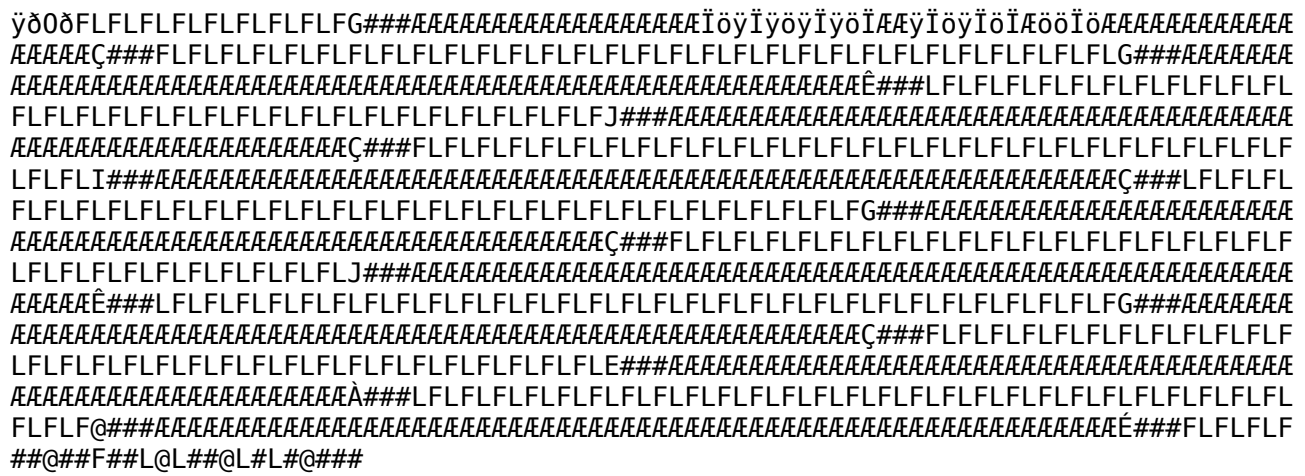

###0#0##-□A##################0##□##ÌøÁ#
´#□#ÿÿ####ÿÿ####Uÿ¥#ÿÿd#########äÿ########U###historical managementnew advances
hfv ecmo perinatal transplant #prenatal correction#

ÿÿ####ÿÿ####Uÿ¥#ÿÿd#########äÿ########□###defect found in south american mummies #dating 3rd century A.D.first described by Pare really traumatic #herniation 1761 Morgagni noted association with #pulmonary hypoplasia1848 Bochdaleck professor University of #Prague attached his name to classic posterior #lateral defect in diaphragm1929 1st attempted repair Betman & Hess1945 repair by Gross Gross series of 63 infants repaired with 55 #survivors

###0#0##H#-□¾########D
      ######0##□##ÌøÁ#####ÿÿ####ÿÿ####Uÿ¥#ÿÿd#########äÿ#########ã###classically
1 in 12,000 in text1 in 5,000 based on Norwegian study early #70's where all
neonatal deaths autopsied1 in 2,200 studies Puri and Gorman when #include still
birthsclassically anomalies in 23%with increase use of prenatal sonography
#incidence reported 40-50%cardiac 13% to 23% by Greenwood #coar/tet/tgv/vsdneuro
28% anencephaly/mylo/hydrocephalusGI 20% TEF/high imper anus/omphaloceleGU 15%
duplication collecting #system/hydronephrosisgenetics trisomy 21/13/18#

```
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#¤###pleuroperitoneal membrane usually closes #dividing abdomen and thoracic
cavities by #8-10 weeksleft closes later than rightmidgut rotation occurs at
same time with #migration of gut back to abdominal cavity #from yolk stalkif gut
returns early or closure of membrane is #late or incomplete gut can herniate
thru #diaphragmatic defect90% herniation occurs thru posteriolateral
#pleuroperitoneal sinus80% left,15% right, 5% bilaterallater closure on left
,protection of liver on #rightmuch less often herniation thru substernal #sinus
foramen of morgagnifelt to represent failure of lower ribs to fuse to #septum
also can herniate thru esophageal hiatusmuch less common
```

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#########Õÿ##÷ÿ####p###8-10 weeks bronchial buds16 weeks segmental bronchi24
weeks-5 years alveolar formationGrowth of blood vessels

```
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#Ì###lung first appears during 4-8th week of fetal #development as ventral
diverticulum arising from embryo #foregut8-10 weeks bronchial buds of
mainstem/lobar10-14 weeks greatest activity of subsegmental #airway branchingby
16 weeks segmental bronchi completely #formedwith number of airway generations
similar to #adults24 weeks to 5 years alveolar formationpicture consistent with
retardation around 10 #weeksadult alveoli about 300 milliongrowth of blood
vessels parallel development #of airwaysgut herniation can effect pulmonary
#development leading to hypoplasialoss of generations of bronchi and bronchioles
#and alveoli possiblewide spectrum can be seennumber of alveoli on affected side
2-8 million #compared to published newborn controls #17-70 millionintertwine
gastric dilatation secondary to #esophageal/duodneal obstruction can further
#compromise developmentincreased intrathoracic volume with #displacement and
compression of contralateral #side
```

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#######     #########

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#[###Decreased chest movementShift of cardiac impulsePresence of bowel sounds
Scaphoid abdomen#
```

#O#ÿÿ####ÿÿ####Uÿ¥#ÿÿd#########äÿ###########decreased chest movement on left presence of bowel sounds on leftabsence of breath sound on leftshift of cardiac impulse to rightscaphoid abdomen like little body buildery

###0#0######   ########ld######0##□##ÌøÁ#d#¯

ÿÿ####ÿÿ####Uÿ¥#ÿÿd#########äÿ########@###cyanosis shortly after birth respiratory distressas infant begins to swallow/breath increased #gut distention worsening mediastinal shiftcreating in essence unusual form tension #pneumothoraxx-ray findings show presence of abdominal #viscera in the chest usually stomachmay also include large intestine/liver/spleen

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##ÿÿ$###ÿÿ####Uÿ¥#ÿÿd##########Õÿ##÷ÿ####|###Thickened pulmonary and arteriolar mediaExtension muscle to resistance vesselsIncreased response to hypoxemia and acidosis

```
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      O#ÿÿ$###ÿÿ####Uÿ¥#ÿÿd#########Õÿ##÷ÿ####O###Bonn> 1/3 alveolar wall
vessels muscularized> 2X normal medial wall thickness#
```

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´ô#ÿ##¯#ÿÿ$###ÿÿ####Uÿ¥#ÿÿd#########Õÿ##÷ÿ####□###Inconsistent site of sampling
Inconsistent time to repairNo ventilatory parameters referencedIntegration
pulmonary hypertension/hypoplasia

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O#ÿÿ$###ÿÿ####Uÿ¥#ÿÿd#########Õÿ##÷ÿ####e###Partial reduction possibleNot
atelectasis but hypoplasiaRepair often decreased thoracic compliance #
```

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#########Õÿ##÷ÿ####□###Limit airway pressureLimit oxygen toxicityEliminate
shuntingReverse systemic hypoxemiaReduce pulmonary blood flowAllow gradual
expansion of lung
```

```
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#########Õÿ##÷ÿ####U###Successful intrauterine repairCriteria for consideration
Best conditions 22-30 weeks#
```

```
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#####################T#□###d#########Çÿ########0##□###øqþü###ÿÿ$###ÿÿ####Uÿ¥#ÿÿd
#########Õÿ##÷ÿ####f###AdzickTransplant as potential treatmentECMO as bridge
until surgeryLLL transplant in neonatal swine
```

```
##################&#######.#######P#######!###CONGENITAL  DIAPHRAGMATIC
HERNIA###################Barb
O'Neill########################################Anesthesia############3###@######
#####@###Öñh#AU»#@###FH¼yBU»#####(###########Microsoft PowerPoint
4.0##G###ö###ÿÿÿÿ#####î#######Ú###ÿ
```